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ABSTRACT

The four reports in this agenda item from an Illinois Board of Higher Education meeting provide updates on transfer outcomes, programs, and policies in Illinois. The first report presents data on fall 1996 transfer activity among community colleges, public and private universities, and private colleges in the state; traditional community college-to-university transfers between 1989 and 1996; baccalaureate achievement rates for transfers to public universities between 1991 and 1996; and advising, transfer, and placement services at the state's community colleges. The second report reviews the status of the Illinois Articulation Initiative (IAI), a statewide program initiated in January 1993 to develop curricula and general education recommendations that facilitate the transfer of students. This report indicates that the IAI has developed a general education core curriculum and formed panels to develop recommendations regarding the courses required of students transferring to four-year colleges and universities. This report also presents the lists of recommended courses, developed by the biological sciences, computer science, mass communication, special education, and theatre arts panels, and endorses them for Board approval. The third report proposes changes to the Board's transfer and articulation policy to ensure that transfer students who complete panel-recommended courses are granted junior status at receiving institutions. The final report describes work completed and information available on the IAI Web site. (BCY)

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ED 416 928

Transfer and Articulation

Illinois State Board of Higher Education

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STATE OF ILLINOIS
BOARD OF HIGHER EDUCATION

TRANSFER AND ARTICULATION

The Board of Higher Education has been concerned about the transfer of students and the articulation of programs among Illinois colleges and universities since adopting its first policy on transfer in 1970. For the past ten years, the Board has closely monitored the transfer of students. With a Ford Foundation grant from the State Higher Education Executive Officers (SHEEO) in January 1989, the Board systematically studied the barriers to and best practices for encouraging the transfer of minority students from associate to baccalaureate degree-granting institutions. This SHEEO grant study contributed to the 1990 statute that created the Higher Education Cooperation Act (HECA) Minority Articulation Program that funds minority student transfer centers in community colleges.

The SHEEO grant study also provided information to the reconvened Committee on the Study of Undergraduate Education which added seven policy statements on transfer and articulation to the recommendations that were adopted by the Board of Higher Education in September 1990. One of these policy directions called for the creation of the public university-community college Shared Enrollment and Graduation Data System to track the progress of students transferring from one public institution to another. A May 1992 status report on implementation of these 1990 policies on transfer and articulation prompted the creation of the Illinois Articulation Initiative (IAI) in January 1993.

There are four related items on this May 1997 Board of Higher Education agenda. Item #4A, *Student Transfer in Illinois Higher Education*, provides an update on transfer activity and trends in Illinois. Item #4B, *The Illinois Articulation Initiative: Status and Endorsements*, describes the current status of the IAI and requests Board of Higher Education endorsement of five additional recommendations for transfer into particular baccalaureate majors. Item #4C, *Undergraduate Education: Policies on Transfer and Articulation*, requests the Board of Higher Education to amend its policies on transfer and articulation to provide for the transfer of courses recommended by the IAI faculty panels for particular baccalaureate majors. Finally, Item #4D, *Illinois Articulation Initiative Website Presentation*, briefly describes the development of the IAI website which will be demonstrated for the Board at the meeting.

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STATE OF ILLINOIS
BOARD OF HIGHER EDUCATION

STUDENT TRANSFER IN ILLINOIS HIGHER EDUCATION

This report examines the scope and trends in transfer among Illinois colleges and universities. Information is drawn from the Board of Higher Education's Fall Enrollment and Degrees Conferred Surveys, the public university-community college Shared Enrollment and Graduation Data System, and the summer 1996 undergraduate education review reports submitted by public universities and community colleges. Previous reports on articulation and studies of transfer in Illinois are listed at the end of the report.

The first section of the report provides a snapshot of the scope of transfer activity in fall 1996. The second section examines trends in the traditional transfer pattern—the transfer of students from a community college to a bachelor's degree program. The third section looks at the after-transfer success in earning a bachelor's degree by a cohort of traditional transfers to public universities. The final section summarizes campus information on transfer and articulation programs and services.

Scope of Transfer Activity

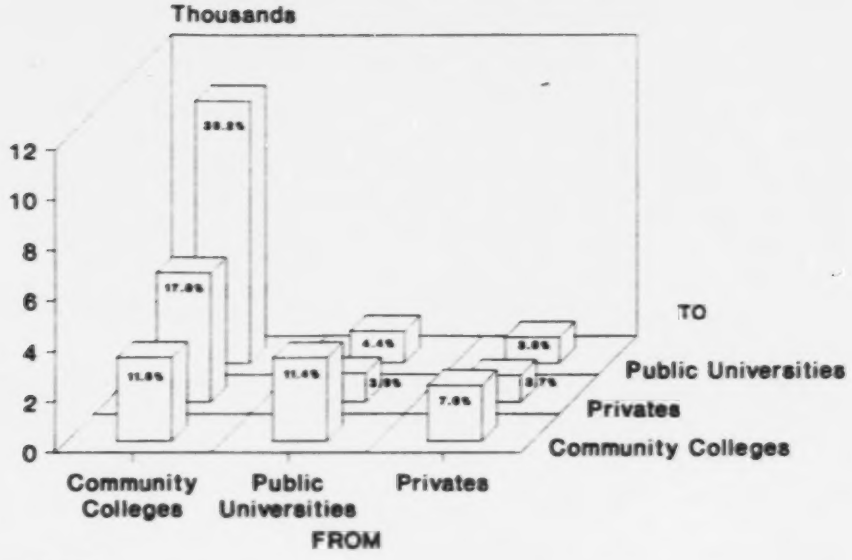
Just as the U.S. population is mobile, so too are college students. Figure A depicts the number of undergraduates who transferred among Illinois' public universities, community colleges, and private colleges and universities in fall 1996, as reported by institutions to the Board of Higher Education in the annual Fall Enrollment Survey. Although students transfer at other times during the year, the Fall Enrollment Survey is the only source of statewide enrollment data. Because Figure A excludes transfers to or from Illinois proprietary schools and out-of-state institutions, it underrepresents the full extent of student transfer.

Figure A shows that 28,825 undergraduates transferred among community colleges, public universities, and private institutions in fall 1996. Just over half (54 percent) followed the traditional pattern of transferring from a community college to a public university or private institution. Nineteen percent were "reverse" transfers, transferring from public universities and private institutions to a community college. The remaining 27 percent transferred from one community college to another, one private institution to another, or one public university to another. While numbers vary from one fall to the next, this pattern of transfer has been consistent over the past five years.

Trends in Traditional Transfer

A primary community college mission is to prepare students for transfer to baccalaureate degree-granting institutions. Community colleges offer four associate degrees designed to prepare students for transfer to the bachelor's degree—the Associate in Arts (AA), Associate in Science (AS), Associate in Engineering Science (AES), and Associate in Fine Arts (AFA). These last two degrees were recommended by faculty panels as part of the Illinois Articulation Initiative. Illinois community colleges also offer occupation-specific Associate in Applied Science (AAS) degrees designed to prepare students for immediate employment in a variety of occupations. Although AA,

Figure A
FALL 1996 TRANSFER



N = 28,825

TO: / *FROM:*	Community Colleges	Public Universities	Private Institutions
Community Colleges	3,310	10,440	5,122
Public Universities	3,277	1,272	1,131
Private Institutions	2,180	1,039	1,054

AS, AES, and AFA degrees specifically prepare students to transfer, some AAS degree recipients also transfer, and many students transfer before completing a degree.

Table 1 shows Illinois public community college undergraduate enrollment from fall 1989 through fall 1996 and the annual number of associate degrees awarded between fiscal years 1989 and 1996. Although community college undergraduate enrollment increased by 4.4 percent, enrollment in baccalaureate-transfer programs increased by 9 percent from fall 1989 to fall 1996. Fall 1996 enrollment, however, is down from the high point in fall 1992. Enrollment in the baccalaureate-transfer program represents just over half of total community college undergraduate enrollment and seems to be on the rise. Table 1 also shows that the number of associate degrees awarded increased by 16.7 percent from fiscal year 1989 to fiscal year 1996. Baccalaureate-transfer associate degrees account for about 55 percent of the total associate degrees awarded.

Table 2 shows the number of transfers from the Illinois public community colleges to the public universities from fall 1987 through fall 1996 and to private institutions from fall 1992 through fall 1996, as well as the number and percent of each group who were Black or Hispanic.

Table 1

COMMUNITY COLLEGE UNDERGRADUATE ENROLLMENT AND ASSOCIATE DEGREES AWARDED 1989 THROUGH 1996

	1989	1990	1991	1992	1993	1994	1995	1996	Percent Change
Fall Undergraduate Enrollment	203,161	217,453	228,943	229,892	222,280	219,805	212,336	212,182	4.4%
Baccalaureate-Transfer	103,428	109,272	117,006	119,304	112,270	111,332	111,080	112,779	9.0%
Percent of Enrollment	*50.9%*	*50.3%*	*51.1%*	*51.9%*	*50.5%*	*50.7%*	*52.3%*	*53.2%*	
Occupational	92,227	96,819	98,418	99,601	93,709	90,826	85,133	84,059	-8.9%
Other	7,506	11,362	13,519	10,987	16,301	17,647	16,123	15,344	104.4%
Annual Associate Degrees Awarded	19,974	20,604	21,858	23,117	24,470	23,398	23,747	23,317	16.7%

Source: IBHE Fall Enrollment and Degrees Conferred Surveys

Table 2

TRENDS IN TRANSFER FROM COMMUNITY COLLEGES TO PUBLIC UNIVERSITIES AND PRIVATE INSTITUTIONS BY RACE/ETHNICITY

	Fall 1987	Fall 1988	Fall 1989	Fall 1990	Fall 1991	Fall 1992	Fall 1993	Fall 1994	Fall 1995	Fall 1996	87-96 Change	92-96 Change
Transfers to Public Universities	9,657	9,034	9,926	10,636	10,511	10,883	10,537	10,669	10,693	10,440	8.1%	-4.1%
Black	830	737	777	931	941	1,029	975	1,049	1,037	940	13.3%	-8.6%
Percent Black	*8.6%*	*8.2%*	*7.8%*	*8.8%*	*9.0%*	*9.5%*	*9.3%*	*9.8%*	*9.7%*	*9.0%*		
Hispanic	230	231	249	313	331	383	401	427	443	427	85.7%	11.5%
Percent Hispanic	*2.4%*	*2.6%*	*2.5%*	*2.9%*	*3.1%*	*3.5%*	*3.8%*	*4.0%*	*4.1%*	*4.1%*		
Transfers to Private Institutions						5,540	5,788	5,429	5,890	5,122		-7.5%
Black						716	823	639	748	697		-2.7%
Percent Black						*12.9%*	*14.2%*	*11.8%*	*12.7%*	*13.6%*		
Hispanic						329	359	321	372	375		14.0%
Percent Hispanic						*5.9%*	*6.2%*	*5.9%*	*6.3%*	*7.3%*		

Source: IBHE Fall Enrollment Surveys

The total number of transfers to public universities increased by 8.1 percent from fall 1987 to fall 1996. This increase, however, occurred primarily between fall 1987 and fall 1990. A decline of 4.1 percent occurred from the fall 1992 high point to fall 1996. The number of Black transfers increased by 13.3 percent from fall 1987 to fall 1996. The highest number of Black transfers was in fall 1994, with fall 1996 showing a loss of 10 percent from this high point. The number of Hispanic transfers increased by 85.7 percent from fall 1987 to fall 1996, with fall 1996 showing a four percent decline from the high point in fall 1995.

Table 2 shows that the number of community college transfers to private institutions also declined overall between fall 1992 and fall 1996, but the number varies from year to year. The number of Black transfers also declined, but at a lesser rate. The number of Hispanic transfers increased by 14 percent. Since the number of transfers to private institutions is about half the number transferring to public universities, Black and Hispanic transfers comprise a higher proportion of the transfer population in private institutions, a proportion in fall 1996 nearly as high as their proportion in the state's total population. Since the number of community college transfers to both public universities and private institutions often rises or falls at the same time, year-to-year variations do not appear to be solely due to intersector competition.

Table 3 compares the total number of community college transfers, as well as the number and proportion of Black and Hispanic transfers, at each public university in fall 1987 and fall 1996. Four public universities—Illinois State University, Northern Illinois University, Southern Illinois University at Carbondale, and the University of Illinois at Chicago—consistently enroll the largest number of community college transfers and, together, account for over half (56 percent in fall 1996) of the community college-to-public university transfers each fall.

Black and Hispanic transfers accounted for 39 percent of the increase in number of community college-to-university transfers from fall 1987 to fall 1996. In both years, the largest number of Black transfers enrolled in Chicago State University. The University of Illinois at Chicago, Northern Illinois University, and Northeastern Illinois University enrolled the largest number of Hispanic transfers in both years, accounting for 68 percent of all Hispanic transfers in fall 1987, declining to 59 percent in fall 1996. Substantial gains in number of Black and Hispanic transfers were reported by five public universities: Illinois State University, Northern Illinois University, Western Illinois University, and Southern Illinois University at Carbondale and at Edwardsville. The University of Illinois at Chicago reported a loss in Black transfers but a gain in Hispanic transfers. Eastern Illinois University and the University of Illinois at Urbana-Champaign made little progress in increasing their very low numbers of Black and Hispanic transfers.

Success After Transfer—Baccalaureate Completion Rates

Follow-up studies of community college-to-baccalaureate transfers in Illinois[1] have shown that about half the transfers earned a bachelor's degree within four years of transfer and that students who had earned an AA or AS degree before transferring completed bachelor's degrees at

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[1] Illinois Council on Articulation, *Performance of Transfer Students Within Illinois Institutions of Higher Education*, 1971; Illinois Community College Board, *A Statewide Follow-Up Study of Students Who Transferred from Illinois Public Community Colleges to Illinois Four-Year Colleges and Universities*, 1977; and Illinois Community College Board, *A Five Year Study of Students Transferring from Illinois Two-Year Colleges to Illinois Senior Colleges/Universities in Fall 1979*, May 1986.

Table 3

TRANSFERS FROM ILLINOIS PUBLIC COMMUNITY COLLEGES TO ILLINOIS PUBLIC UNIVERSITIES
FALL 1987 AND FALL 1996

	Fall 1987				Fall 1996				Number Change Fall 1987 to Fall 1996		
	Total Transfers	Black	Hispanic	Percent Black and Hispanic	Total Transfers	Black	Hispanic	Percent Black and Hispanic	Total Transfers	Black	Hispanic
Chicago State University	401	369	9	94.3 %	337	303	15	94.4 %	(64)	(66)	6
Eastern Illinois University	728	9	3	1.6	816	16	10	3.2	88	7	7
Governors State University	470	68	9	16.4	314	66	16	26.1	(156)	(2)	7
Illinois State University	1,367	28	9	2.7	1,621	65	36	6.2	254	37	27
Northeastern Illinois University	572	57	43	17.5	450	67	51	26.2	(122)	10	8
Northern Illinois University	1,454	23	30	3.6	1,463	56	80	9.3	9	33	50
Western Illinois University	680	38	13	7.5	883	52	35	9.9	203	14	22
Southern Illinois University	1,907	94	18	5.9	2,368	176	41	9.2	461	82	23
Carbondale	1,454	56	15	4.9	1,684	110	28	8.2	230	54	13
Edwardsville	453	38	3	9.1	684	66	13	11.5	231	28	10
University of Illinois	2,078	144	96	11.5	2,188	139	143	12.9	110	(5)	47
Chicago	1,016	101	83	18.1	1,088	86	121	19.0	72	(15)	38
Springfield	415	35	0	8.4	460	41	6	10.2	45	6	6
Urbana - Champaign	647	8	13	3.2	640	12	16	4.4	(7)	4	3
TOTAL	9,657	830	230	11.0 %	10,440	940	427	13.1 %	783	110	197

Source: IBHE Fall Enrollment Surveys

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substantially higher rates than did students who did not. While these early studies depended upon ad hoc and voluntary data-collection processes, the May 1994 report. *Undergraduate Education: Transfer and Articulation Re-examined*, used data from the Shared Enrollment and Graduation Data System to examine the transfer behavior of the fiscal year 1988 college-entry cohort. Although the Shared Data System routinized data collection, only public universities and community colleges currently participate. The May 1994 report found that just under half (47.2 percent) of the traditional community college-to-public university transfers in the 1988 entry cohort earned a bachelor's degree within six years of starting college. That report also confirmed previous findings that students who completed an associate degree were much more likely also to complete a bachelor's degree.

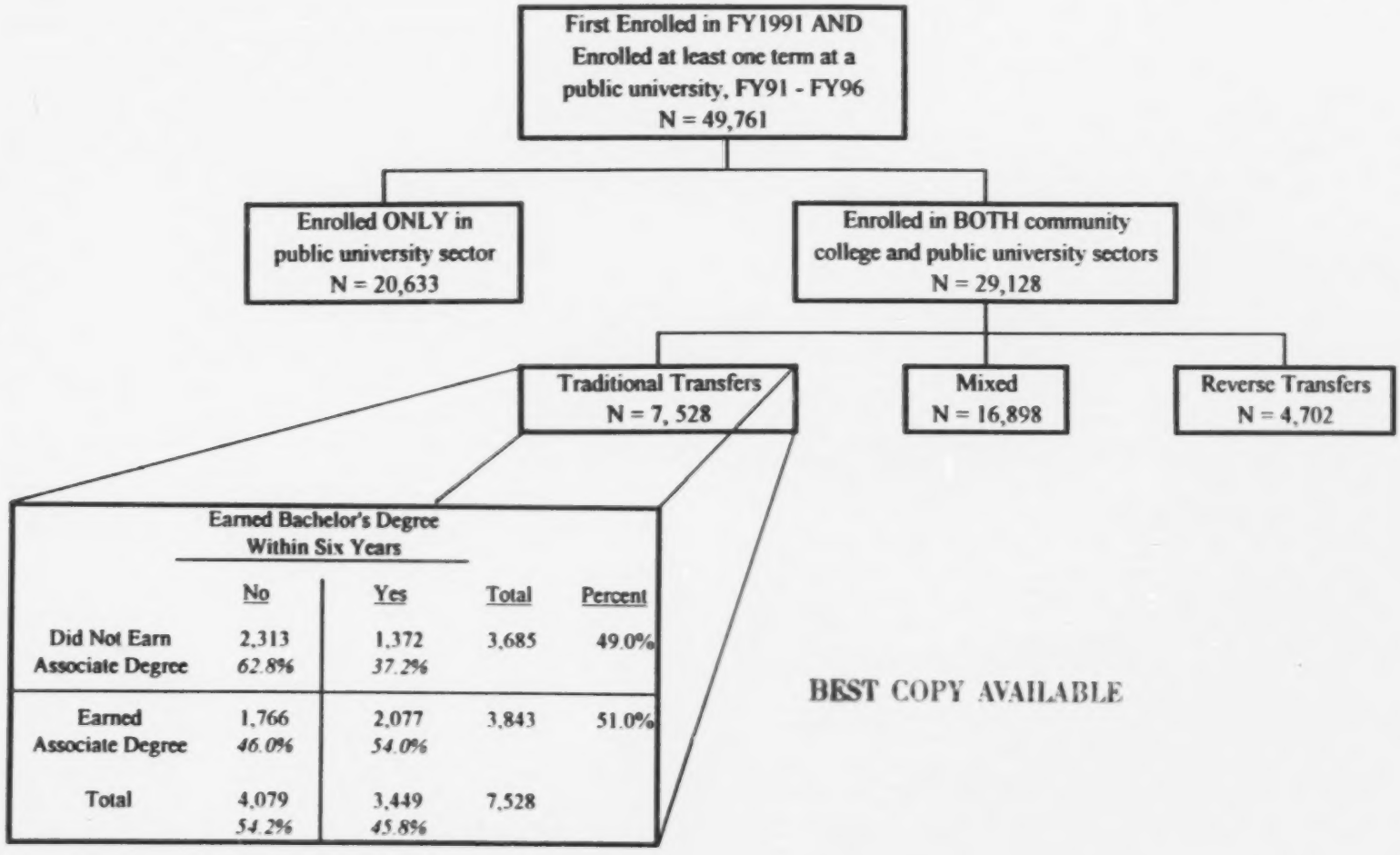
Again using data from the public Shared Enrollment and Graduation Data System, Figure B presents the transfer behavior of the 49,761 students who enrolled for the first time during fiscal year 1991 and who enrolled for at least one term in a public university between fiscal years 1991 and 1996, a six-year period. As the figure shows, 20,633, or 41 percent, of the 1991 entry cohort enrolled only in the public universities, while 29,128, or 59 percent, enrolled in both public universities and community colleges. Of these 29,128 shared students, only 7,528 (26 percent) were "traditional" transfer students—that is, their first enrollment of record was in a community college, they enrolled for at least two terms in a community college, and all of their community college enrollments preceded their enrollment in public universities. Another 16 percent of these shared fiscal year 1991 cohort students were "reverse" transfers—that is, students whose enrollments in public universities preceded enrollment in community colleges. The majority (58 percent) of the 1991 entry cohort students were truly shared in that their community college and public university enrollments were "mixed" or interspersed.

Figure B includes a matrix showing the relationship between associate and bachelor's degree attainment among the traditional transfers. Overall, 45.8 percent of the traditional transfers earned their bachelor's degrees within six years of first enrollment in fiscal year 1991. The matrix also shows that 54 percent of the traditional transfers who earned associate degrees before transferring earned their bachelor's degrees within six years, while only 37 percent of transfers who did not earn an associate degree did so. In comparison, 47.7 percent (9,835) of the 20,633 students in the fiscal year 1991 cohort that enrolled only in public universities earned their bachelor's degrees within six years. These findings indicate that students who begin their bachelor's degree at a community college and then transfer to a public university are as successful in completing their bachelor's degrees as those students who start at a public university. The data also show that those who complete an associate degree before transfer are more likely to complete their bachelor's degree within six years of college entry than are transfers who did not.

Table 4 shows the baccalaureate persistence of the traditional transfers in the fiscal year 1991 entry cohort by race/ethnicity. The table shows that both Black and Hispanic transfers were significantly less likely to earn associate degrees (63 percent did not) en route to the baccalaureate than were "all other" transfers (46.8 percent did not). It also shows that Black transfers were the least likely to earn their bachelor's within six years, at 16 percent, and had the lowest persistence rate at 57.3 percent. Hispanic transfers were more likely (at 26.7 percent) than Black transfers but less likely than "all others" (at 50 percent) to earn their bachelor's degree within six years. Both Black and Hispanic transfers were more likely than "all others" to be still enrolled six years after entry. Black and Hispanic transfers who completed associate degrees before transfer, however, were more likely to be still enrolled. The total persistence of Hispanic students at 70 percent is comparable with the persistence rate of "all other" transfers, at 72.2 percent. Earning an associate

Figure B

COMMUNITY COLLEGE ENROLLMENT OF PUBLIC UNIVERSITY STUDENTS
FY91 FIRST-ENROLLMENT COHORT


First Enrolled in FY1991 AND Enrolled at least one term at a public university, FY91 - FY96
N = 49,761
Enrolled ONLY in public university sector
N = 20,633
Enrolled in BOTH community college and public university sectors
N = 29,128
Traditional Transfers
N = 7, 528
Mixed
N = 16,898
Reverse Transfers
N = 4,702

	Earned Bachelor's Degree Within Six Years			
	No	Yes	Total	Percent
Did Not Earn Associate Degree	2,313 *62.8%*	1,372 *37.2%*	3,685	49.0%
Earned Associate Degree	1,766 *46.0%*	2,077 *54.0%*	3,843	51.0%
Total	4,079 *54.2%*	3,449 *45.8%*	7,528	

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Source: Public Shared Enrollment/Graduation Data System

Table 4

BACCALAUREATE PERSISTENCE OF TRADITIONAL TRANSFERS: FY91 FIRST-ENROLLMENT COHORT

Black Traditional Transfers

	Earned Bachelor's in 6 Years	Did Not Earn Bachelor's/ Enrolled Spring 1996	Total Persistence	Did Not Earn Bachelor's/ Not Enrolled Spring 1996	Total	Percent
Did Not Earn Associate Degree	74 *15.9%*	179 *38.5%*	253 *54.4%*	212 *45.6%*	465	63.2%
Earned Associate Degree	44 *16.2%*	125 *46.1%*	169 *62.4%*	102 *37.6%*	271	36.8%
Total	118 *16.0%*	304 *41.3%*	422 *57.3%*	314 *42.7%*	736	

Hispanic Traditional Transfers

	Earned Bachelor's in 6 Years	Did Not Earn Bachelor's/ Enrolled Spring 1996	Total Persistence	Did Not Earn Bachelor's/ Not Enrolled Spring 1996	Total	Percent
Did Not Earn Associate Degree	43 *25.0%*	68 *39.5%*	111 *64.5%*	61 *35.5%*	172	63.0%
Earned Associate Degree	30 *29.7%*	50 *49.5%*	80 *79.2%*	21 *20.8%*	101	37.0%
Total	73 *26.7%*	118 *43.2%*	191 *70.0%*	82 *30.0%*	273	

All Other Traditional Transfers

	Earned Bachelor's in 6 Years	Did Not Earn Bachelor's/ Enrolled Spring 1996	Total Persistence	Did Not Earn Bachelor's/ Not Enrolled Spring 1996	Total	Percent
Did Not Earn Associate Degree	1,255 *41.2%*	752 *24.7%*	2,007 *65.8%*	1,041 *34.2%*	3,048	46.8%
Earned Associate Degree	2,003 *57.7%*	698 *20.1%*	2,701 *77.8%*	770 *22.2%*	3,471	53.2%
Total	3,258 *50.0%*	1,450 *22.2%*	4,708 *72.2%*	1,811 *27.8%*	6,519	

Source: Public Shared Enrollment/Graduation Data System

degree prior to transfer significantly improved the bachelor's earning and persistence rates of Hispanic and "all other" transfers, but only slightly improved persistence among Black transfers.

Table 5 compares the fiscal year 1991 entry cohort with the 1988 entry cohort from the May 1994 report. The table shows that although there were 2.6 percent fewer students in the 1991 cohort than in the 1988 cohort, the number of shared students increased by 6.9 percent and the number of "traditional transfers" increased by 5.9 percent. More important, the number of Black and Hispanic traditional transfers increased by 31.2 percent and 44.4 percent, respectively, which increased their proportions in the cohort, with Black students comprising 9.8 percent and Hispanic students 3.6 percent of the traditional transfers in the fiscal year 1991 cohort. The number and proportion of students completing associate degrees before transferring, and the number earning both an associate and a bachelor's degree within six years of college entry also increased substantially.

Table 5

COMPARISON OF FY 1988 AND FY 1991 FIRST-ENROLLMENT COHORTS

	FY 1988 Cohort	FY 1991 Cohort	Percent Change
Total in Cohort	51,072	49,761	-2.6%
Shared Students	27,252	29,128	6.9%
Percent of Total	*53.4%*	*58.5%*	
Total Traditional Transfers	7,106	7,528	5.9%
Percent of Shared	*26.1%*	*25.8%*	
Black Traditional Transfers	561	736	31.2%
Percent of Traditional	*7.9%*	*9.8%*	
Hispanic Traditional Transfers	189	273	44.4%
Percent of Traditional	*2.7%*	*3.6%*	
Earned Associate Degree	3,462	3,843	11.0%
Percent of Traditional	*48.7%*	*51.0%*	
Earned Associate and Bachelor's in 6 years	1,834	2,077	13.2%
Percent of Traditional	*25.8%*	*27.6%*	

Source: Public Shared Enrollment/Graduation Data System

Campus Policies and Interventions

In their 1995-1996 Undergraduate Education Reviews, public universities and community colleges were asked to focus on academic advising, transfer and articulation, and career planning and placement services. Under the transfer and articulation topic, campuses were asked to evaluate their policies and processes for admitting transfer students, their programs designed to assist students who plan to transfer (community colleges) or have transferred (public universities), and their interinstitutional articulation agreements. Campuses were asked specifically to report any actions taken to improve or expand their policies, processes, and programs in these areas.

The community college reports show that community colleges expend considerable time and energy on advising students about how to transfer. Many community colleges pointed out the benefits of physically locating various student advising, counseling, and other service offices in close proximity. To receive a HECA grant for a minority transfer center, a campus must agree to locate the transfer center in a highly visible and accessible spot. Several colleges that have not consolidated these various student services into a single location are planning to do so. Dedicated information kiosks and the Internet are also being used to provide access to computerized course articulation information and, in a few cases, to degree audits. To date, however, only a few community colleges have computerized degree audit systems. The community colleges with HECA-funded transfer centers have computerized client tracking systems and other information for students. In their reports, community colleges indicated they need to find the resources to make advising information available on-line to better serve their students. The community colleges, and one private junior college, operating HECA-funded transfer centers are listed in the Appendix.

Community colleges also reported using student-to-student efforts to enhance transfer success. For example, Malcolm X College is revitalizing its "Bachelor Bound" Society, and Harry S Truman College's new alumni office plans to establish alumni networks at various colleges and universities to provide continuing support to alumni after transfer. The four Illinois Eastern Community Colleges established a Success Network to provide advising and tutoring to first-generation college students with the assistance of a federal Title IV grant. College of DuPage, Heartland Community College, and Illinois Central College described orientation and/or in-service training courses or sessions for advisors, including faculty advisors, in order to assure accuracy and timeliness of information provided. Kennedy-King College described its MARS (Mentoring for Academic Retention and Success) program, a faculty-initiated counseling and advising support system for arts and science students and for those undecided about their major or career objectives.

Two out of three community colleges discussed participation in the Illinois Articulation Initiative. Eight community colleges specifically indicated they were revising their general education programs to conform to the General Education Core Curriculum and/or were making changes to other programs in response to the recommendations of the various baccalaureate majors' panels. Harold Washington and Kennedy-King Colleges of the City Colleges of Chicago, for example, specifically reported they were incorporating writing experience into each general education course.

Several community colleges cited Western Illinois University as particularly easy to work with and welcoming of transfer students. Black Hawk College, for example, reported on its dual enrollment program and Lincoln Land Community College described the articulation of its Honors program with Western Illinois University. Eastern Illinois University, Northern Illinois University, and the University of Illinois at Urbana-Champaign were described as more difficult to work with. Only two community colleges discussed transfer of students into the college. Oakton Community College indicated that most of its students earn credit elsewhere before enrolling at Oakton, and Black Hawk College commented on the increasing number of students transferring from one community college to another.

Eleven community colleges reported arranging articulation agreements with out-of-state institutions—Belleville Area College and Metropolitan Community College with St. Louis colleges and universities; Black Hawk College with the University of Iowa; John A. Logan College, Shawnee Community College, and Southeastern Illinois College with Murray State University in Kentucky; John A. Logan College, Shawnee Community College, and Belleville Area College with Southeast Missouri State University; Rock Valley College with Beloit College in Wisconsin;

Moraine Valley Community College, Parkland College, and Danville Area Community College with nearby Indiana colleges and universities; and Malcolm X and Parkland College with a number of historically Black colleges and universities.

In their reports, the public universities emphasized transfer advising as part of the admission process. As upper-division universities, Governors State University and the University of Illinois at Springfield generally expect that entering students will already have completed 60 semester credits, including an array of general education courses. The University of Illinois at Urbana-Champaign also prefers that students seeking transfer admission have completed 60 semester credits. Other public universities will accept as transfer applicants students who have earned either 24 or 30 semester credits. The University of Illinois at Chicago recently increased its standard to 24 semester credits, based on its study that those incoming transfer students with 24 or more transfer credits do better academically than do transfers with fewer credits. Illinois State University and Southern Illinois University at Carbondale described their long-standing efforts to assist transfer students by granting students who completed an AA or AS degree before transferring both junior standing and credit for completion of general education. Southern Illinois University at Carbondale went a step further by guaranteeing admission to the university (though not necessarily to the program of choice) to students who earned an AA or AS degree.

Two out of three public universities either already have established or are nearing completion of a computerized degree audit system to which students and advisors have access for advising and registration. Illinois State University was the only public university reporting it already has the capability to receive transcripts from both community colleges and high schools electronically via the national SPEEDE/ExPRESS protocol.

Although eight of the 12 public universities mentioned their participation in the Illinois Articulation Initiative in their reports, only two—Western Illinois University and Southern Illinois University at Carbondale—provided their revised transfer policies resulting from participation in the Initiative, with a third (Northern Illinois University) reporting that revision was in process as was revision of its whole course-equivalency data system. Northern Illinois, Southern Illinois at Carbondale, and Illinois State Universities also all described efforts by individual constituent colleges to articulate with specific community college AAS degree programs. Southern Illinois University at Edwardsville indicated it articulated programs not only with the four nearby Illinois community colleges but also with the three St. Louis community colleges.

Summary and Conclusions

The information about transfer examined in this report shows some positive signs of both increased transfer activity and increased student success after transfer. Community college baccalaureate-transfer enrollment increased both absolutely and as a proportion of total enrollment, and the number of associate degrees awarded increased substantially in the last seven years. Although the number of transfers varies from one year to another, the overall trend in transfers from community colleges to both public universities and private institutions has been up, with an increase between fall 1987 and 1990 of about 2,000 students.

The overall number of Black transfers is also up since fall 1987, but growth is irregular and has not been sustained. The proportion of Black transfers to public universities (9.0 percent in fall 1996) continues to be much lower than their proportion in the Illinois population (14.6 percent in the 1990 Census) and among both public high school graduates (14.9 percent in fiscal year 1995) and community college baccalaureate-transfer enrollment (14.5 percent in fall 1995).

Similarly, although the number of Hispanic transfers from community colleges to public universities has nearly doubled in the past nine years (from 230 in fall 1987 to 427 in fall 1996), Hispanics continue to be seriously underrepresented in community college baccalaureate-transfer enrollment (5.7 percent in fall 1995) and among public university transfers (4.1 percent in fall 1996) compared with their proportion in the Illinois population (7.9 percent in the 1990 Census) and among public high school graduates (8.1 percent in fiscal year 1995). Black and Hispanic transfers from community colleges to private institutions in fall 1996, at 13.6 percent and 7.3 percent, respectively, much more closely reflect their proportion among Illinois citizens.

Most encouraging was the increase in associate and bachelor's degree earning and baccalaureate persistence among the traditional transfers in the fiscal year 1991 college-entry cohort compared with the fiscal year 1988 college-entry cohort. The relationship between associate and bachelor's degree completion also continues to be strongly positive. The number of Blacks and Hispanics who complete the associate degree before transfer, however, continues to be substantially lower than the number of "all other" transfers.

The Board of Higher Education has been focusing attention on transfer and articulation since 1989, first with a Ford Foundation grant through the State Higher Education Executive Officers and then through new policies in September 1990 and as subsequently amended in 1992 and 1994. The first HECA-funded transfer centers were established in May 1990, and the Illinois Articulation Initiative began in January 1993. The flurry of activity in the early 1990s appears to have resulted in the high points in number of transfers in falls 1992 and 1993. With variation since then, only more time will show whether 1992 and 1993 were "blips" in the system or foreshadow an upward trend.

The success of a few public universities—Illinois State University, Western Illinois University, and both campuses of Southern Illinois University—in sustaining not only a large overall increase in number of transfers but also an increase in number of Black and Hispanic transfers deserves further study. For example, to what extent are these universities perceived as friendly to community college transfers, what contributes to the perception, and, most important, to what extent is the perception borne out by persistence to completion of the bachelor's degree? These universities all discussed their efforts to develop 2+2 articulation agreements with nearby community colleges, their participation in the Illinois Articulation Initiative, and their use of computerized degree-audit and other information systems.

Also deserving further study is the impact on transfer of the HECA-funded minority transfer centers, now that the oldest are approaching their seventh anniversaries. In addition, what community college policies, programs, and services appear to be most salient in increasing not only the number of transfers but also success after transfer in earning bachelor's degrees? To what extent is the lower six-year bachelor's degree completion rate of Black and Hispanic students, in particular, a reflection of financial aid availability and, perhaps, the tendency to expend too much financial aid eligibility before transfer?

While these topics deserve further study both at the campus and statewide levels, the information presented in this report suggests that the Board of Higher Education's policies on transfer and articulation continue to be appropriate. Expansion of the Shared Enrollment and Graduation Data System to include private institutions would greatly enhance understanding of the state's transfer dynamics. The implementation of the Illinois transferable General Education Core Curriculum for freshmen entering in summer 1998 and the availability of articulation information on the Web may also greatly change transfer dynamics in the future.

REPORTS AND STUDIES ON TRANSFER AND ARTICULATION

Illinois Board of Higher Education. *Resolution on Transfer Equivalency*. December 1970.

Illinois Board of Higher Education. *Improvement of Minority Student Baccalaureate Achievement Through Transfer: SHEEO Grant Project Final Report*. July 10, 1990.

Illinois Board of Higher Education. *Undergraduate Education: Report of the Committee on the Study of Undergraduate Education*. September 1990.

Illinois Board of Higher Education. *Undergraduate Education: Transfer and Articulation*. May 1992.

Illinois Board of Higher Education. *Undergraduate Education: Transfer and Articulation Re-examined*. May 1994.

Illinois Board of Higher Education. *Policies on Transfer and the General Education Core Curriculum*. September 1994.

Illinois Board of Higher Education. *The Illinois Articulation Initiative: Implementation of the General Education Core Curriculum*. March 1995.

Illinois Board of Higher Education. *The Illinois Articulation Initiative: Articulation in Baccalaureate Majors*. May and November 1995.

Illinois Board of Higher Education. *The Illinois Articulation Initiative: Status Report and Additional Endorsements*. July 1996.

Illinois Community College Board. *A Statewide Follow-Up Study of Students Who Transfer from Illinois Public Community Colleges to Illinois Four-Year Colleges and Universities*. 1977.

Illinois Community College Board. *A Five Year Study of Students Transferring from Illinois Two-Year Colleges to Illinois Senior Colleges/Universities in Fall 1979*. May 1986.

Illinois Council on Articulation. *Performance of Transfer Students Within Illinois Institutions of Higher Education*. 1971.

APPENDIX

HIGHER EDUCATION COOPERATION ACT-FUNDED MINORITY TRANSFER CENTERS

Belleville Area College, initial grant in May 1990
Black Hawk College, initial grant in May 1990
City Colleges of Chicago
- Richard J. Daley College, initial grant in May 1990
- Kennedy-King College, initial grant in May 1990
- Malcolm X College, initial grant in May 1990
- Olive-Harvey College, initial grant in May 1990
- Harry S Truman College, initial grant in May 1990
- Harold Washington College, initial grant in May 1990

College of DuPage, initial grant in September 1990, continuous since September 1992
Elgin Community College, initial grant in September 1990
William Rainey Harper College, initial grant in September 1995
Illinois Central College, initial grant in May 1990
Joliet Junior College, initial grant in September 1990
Kankakee Community College, initial grant in May 1990
Kishwaukee College, initial grant in September 1995
Lincoln Land Community College, from September 1992 to August 1996
John A. Logan College, initial grant in September 1992
Metropolitan Community College[formerly State Community College], initial grant in May 1990
Moraine Valley Community College, initial grant in May 1990
Oakton Community College, initial grant September 1996
Parkland College, initial grant in September 1993
Prairie State College, initial grant in September 1991
Richland Community College, initial grant in May 1990
Saint Augustine College, initial grant in September 1990
Shawnee Community College, initial grant in September 1991
South Suburban College of Cook County, initial grant in May 1990
Triton College, initial grant in May 1990
Waubonsee Community College, initial grant in May 1990

Item #4B
May 6, 1997

STATE OF ILLINOIS
BOARD OF HIGHER EDUCATION

THE ILLINOIS ARTICULATION INITIATIVE: STATUS AND ENDORSEMENTS

In January 1993, the Board of Higher Education, the Illinois Community College Board, and the Transfer Coordinators of Illinois Colleges and Universities jointly launched the Illinois Articulation Initiative to facilitate the transfer of students among Illinois public and independent, associate and baccalaureate degree-granting institutions. The Initiative grew out of the Board of Higher Education's 1990 policies on Transfer and Articulation. These policies contain two key concepts around which the Initiative was designed: First, that "associate and baccalaureate degree-granting institutions are equal partners" and, second, that "faculties should take primary responsibility for developing and maintaining program and course articulation."

The Illinois Articulation Initiative has been a complex undertaking, involving more than 100 Illinois colleges and universities, about 750 college and university faculty and staff serving on 28 panels and a task force, and countless others behind the scenes on campuses across the state. At this point, the Initiative has completed about 80 percent of the development tasks. Implementation of the General Education Core Curriculum and the first ten Baccalaureate Majors' Recommendations is just a year away—Summer 1998. Because curricula—and the courses within them—are constantly changing, articulation is never "done." Thus, the faculty panels will continue to operate, with individual members replaced when necessary, in order to continuously review new courses. Each curriculum will be reviewed and revised at least every five years, and the Initiative as a whole will be evaluated as a means of improving the transfer process for students. The first curriculum review and initiative evaluation is already scheduled for the 1999-2000 academic year.

General Education Core Curriculum

Because all associate and baccalaureate degrees require completion of general education, the transferable General Education Core Curriculum was developed first and will be implemented statewide for first-time freshmen entering Illinois colleges and universities in summer 1998 and thereafter. The Curriculum consists of 12 to 13 courses (37 to 41 semester credits) selected from the five fields commonly found in general education programs: oral and written communication, mathematics, humanities and fine arts, social and behavioral sciences, and physical and life sciences. Information on the General Education Core Curriculum and the database of institutional courses matched to the course descriptions included in it will become available to the public on the Illinois Articulation Initiative's World-Wide Web site on May 15, 1997. The address is http://www.iTransfer.org.

Baccalaureate Majors Recommendations

Once the General Education Core Curriculum was completed, faculty panels began developing recommendations on what is essential for a student to complete to transfer into a specific baccalaureate major as a junior. Baccalaureate majors are selected based on the number of transfer admissions annually, with those majors with the largest number of transfer students selected first.

Likewise, institutions are selected to name panel members based on the relative size of the approved program in the major. Each panel elects co-chairs and determines its own mode of operating. Panels usually examine previous articulation documents, compare degree requirements across institutions to identify common elements, and determine whether any special advice to students may be appropriate. Since each baccalaureate major differs from all other majors, the structure and content of the recommended curriculum also differ from one major to another.

When a panel reaches consensus, the panel's draft recommendation is disseminated to all participating institutions for comment. At the end of the comment period, the panel reconvenes to discuss the comments received and to make any revisions necessary. The panel's final recommendation is then submitted to the Steering panel for its endorsement. The Steering Panel reviews the recommendation against three criteria: that panel membership is appropriately representative, that the recommendation represents consensus of the panel members, and that the recommendation will facilitate the transfer of students. Recommendations endorsed by the Steering Panel are then submitted to both the Board of Higher Education and the Illinois Community College Board for their endorsement, the trigger needed to initiate the steps to implementation.

To date, 22 baccalaureate majors' panels have been established. The recommendations of ten panels—agriculture, art, business, criminal justice, early childhood education, elementary education, engineering, music, psychology, and secondary education—were previously endorsed by the Initiative's Steering Panel and by the Board of Higher Education and Illinois Community College Board for implementation at the same time as the General Education Core Curriculum in summer 1998, and two panel recommendations—clinical laboratory science and nursing—were endorsed for implementation in summer 2000. Today, the Board of Higher Education is asked to endorse the recommendations by the biological sciences, computer science, mass communication, special education, and theatre arts majors' panels. The Steering Panel has endorsed all five and recommends their implementation in summer 2000. Because of its key role in guiding the Illinois Articulation Initiative, the members of the Steering Panel are listed at the end of this report prior to the Exhibits.

The English Panel disseminated a draft recommendation for comment, meeting in April to discuss the comments and revise its recommendation. The Speech Communication Panel's draft, as well as with the English Panel's revision, were disseminated for review the first of May. The first Manufacturing Technology Panel—in machining and metals—is also nearing completion of a total redesign of curricula from the high school through the Associate in Applied Science degree using national and state skills standards and culminating in baccalaureate capstone programs. Institutions have been asked to name members for panels to articulate baccalaureate majors in chemistry and mathematics to begin in fall 1997.

Communication and Issue Resolution Processes

The success of any undertaking this complex and involving so many players depends on good communication. The Transfer Coordinators' organization, one of the Illinois Articulation Initiative's cosponsors, has well established communication and problem-solving channels that should continue to address most transfer and articulation issues that arise. The Transfer Coordinators' organization has devoted a half day of its biannual meetings to open forums on the Initiative to help disseminate information and prevent misinterpretations. Two or three transfer coordinators also serve on each panel. During 1997-98, the Transfer Coordinators' organization plans to sponsor workshops for campus advisors and counselors on the Illinois Articulation Initiative.

From the beginning, the Steering Panel has assumed responsibility for clarifying interpretations, addressing issues arising across or between panels, and monitoring written communication about the Initiative. The Steering Panel has also established processes and procedures first to develop and, then, to implement agreements in order to keep the focus on facilitating students' success in transferring among Illinois colleges and universities. At its April meeting, the Steering Panel adopted a formal process and criteria for hearing appeals on course and curriculum decisions made by individual general education and baccalaureate majors' panels and for hearing appeals on other policies or procedures of implementation.

At a recent meeting, the Academic Leadership Group (comprised of community college and public university chief academic officers) confirmed its continued support for the Illinois Articulation Initiative and confidence in the Steering Panel's and Transfer Coordinators' abilities to address most transfer and articulation problems. Since conflicts may arise within institutions as well as between institutions, the Academic Leadership Group recommends that, when a conflict arises between two institutions, the chief academic officers should take action to resolve the issue. Further, each participating institution should develop a multi-level process for identifying and addressing articulation problems. Such a process should include the chief academic officer but may also include appropriate faculty committees so that articulation decisions are part of the campus' academic decision-making processes. General problems of transfer or articulation, especially those not due to the Illinois Articulation Initiative, and those involving several institutions should continue to be referred to the Transfer Coordinators. The organization of Community College Chief Academic Officers also will provide assistance to colleges and serve as a forum for addressing transfer and articulation issues, particularly issues not specific to the Illinois Articulation Initiative. The Illinois Community College Board and Illinois Board of Higher Education staffs also will provide assistance in resolving issues.

Continuous communication among all constituents is important to assuring the success of the Illinois Articulation Initiative in facilitating student transfer. The Board of Higher Education and Illinois Community College Board will continue to give priority to communicating about the Initiative. The Transfer Coordinators, the Initiative Steering Panel and the General Education and Baccalaureate Majors' Panels, and the academic leadership of participating colleges and universities also share responsibility for regular communication with their constituencies.

Resolution

The staff recommends adoption of the following resolution:

The Board of Higher Education hereby endorses the recommendations of the biological sciences, computer science, mass communication, special education, and theatre arts panels, as presented in Exhibits 1 through 5, and requests the staff and institutions to begin the steps necessary to implement these recommendations for freshmen entering in summer 2000.

BEST COPY AVAILABLE

STEERING PANEL

Communications Panel Co-Chairs

Donald Barshis, Wilbur Wright College
Kenneth Nordin, Benedictine University

Mathematics Panel Co-Chairs

James Hajek, Lincoln Land Community College
Linda Sons, Northern Illinois University

Humanities and Fine Arts Panel Co-Chairs

Carroll Gibbons, Lake Land College
Robert Stefl, Illinois State University

Social and Behavioral Sciences Panel Co-Chairs

Janet Cornelius, Danville Area Community College
William Walters, Illinois State University

Physical and Life Sciences Panel Co-Chairs

James Massey, Belleville Area College
Gary Trammell, University of Illinois at Springfield

Public University Representatives

Jeffrey Chown, Northern Illinois University
Charles Evans, Eastern Illinois University
John Nicolette, University of Illinois at Chicago
Gerald Pogatshnik, Southern Illinois University at Edwardsville

Community College Representatives

Charles Beetz, Parkland College
Casimir Kotowski, Harry S Truman College
Barbara Nelson, Triton College, **CO-CHAIR**
Margot Vance, Illinois Central College
Girard Weber, Heartland Community College

Private Institution Representatives

Jerome Hahn, Bradley University
Thomas Knapp, Loyola University of Chicago
Charles Suchar, DePaul University

Illinois Transfer Coordinators' Representatives

Dale Ewen, Parkland College
Tom McGinnis, Southern Illinois University at Carbondale, **CO-CHAIR**
Sheryl Paul, College of St. Francis

BIOLOGICAL SCIENCES

Baccalaureate biological science programs are diverse. Some programs emphasize cell and molecular biology, whereas others emphasize organismal, ecological, and evolutionary biology. Large institutions generally have optional tracks or programs that combine all elements of biological science. Students should decide the direction or specialization within biology as early as possible, preferably by the beginning of the sophomore year. Community and junior college students are strongly encouraged to complete an Associate of Science degree prior to transfer. The advice of both community college and university biology faculty members is encouraged prior to selection of biology elective courses. To transfer as a junior into a baccalaureate biological sciences program, students must complete a minimum of 60 semester credits, including all of the essential prerequisite courses on the list below. For maximum transferability, the student is encouraged to complete all general education, supporting science, and biology core courses listed below.

	Recommended Curriculum
General Education Core Courses[1]	**41 semester credits**
Communications	9 semester credits
Social/Behavioral Sciences	9 semester credits
Humanities/Fine Arts	9 semester credits
Mathematics *(Select Statistics and Calculus I or Calculus II)*	6 semester credits
Life/Physical Science *(Select Biology I and General Chemistry I)*	8 semester credits

[1] *General education courses are described in the Illinois General Education Core Curriculum. The biological science major requires the maximum 41 semester credits.*

Required Supporting Physical Science Courses	**12 semester credits**
General Chemistry II	4 semester credits
Physics I and/or II and/or Organic Chemistry I and/or II	8 semester credits
Biological Science Core Courses	**4 semester credits**
Biology I *(fulfills life science requirement in General Education Core Curriculum)*	
Biology II	4 semester credits
Biological Science or Other Electives	**3-7 semester credits**

The panel recommends that students selecting further coursework in the major should consult with an advisor. Field courses in biology/botany and comparative vertebrate anatomy are biology electives that offer reasonable probability of transfer, depending upon the student's biology specialization and the baccalaureate institution. Courses such as microbiology and human anatomy and physiology sometimes can be transferred for credit in allied health majors, but most often do not transfer as biology major credit.

TOTAL	**60-64 semester credits**

Note: Calculus and Statistics fulfill the General Education Core Curriculum mathematics requirement. Chemistry I fulfills the physical science part and Biology I fulfills the life science part of the General Education Core Curriculum science requirement. All four courses are also required in the biological science major.

Biological Science Course Descriptions

Required Prerequisite Courses

CALCULUS I, II (6-8 semester credits): Analytic geometry topics include coordinate systems, lines and line segments, distance between points, line sketching, equations and graphs of conic sections, transformation of coordinates, translations and rotations, parametric equations, polar coordinates and equations, vectors in two and three dimensions, vector operations, planes and lines in space, surfaces and quadric surfaces, cylindrical land spherical coordinates and space curves. Calculus topics include complex numbers and notation; limits and continuity/definition of derivative, rate of change and slope; derivatives of polynomial and rational functions; the chain rule; implicit differentials; approximation by differentials; higher order derivatives; Rolle's theorem and mean-value theorem; applications of the derivative; anti-derivative; the definitive integral; the fundamental theorem of calculus; area, volume, and other applications of the integral; the calculus of the trigonometric functions; logarithmic and exponential functions; techniques of integrations, including numerical methods; indeterminate forms and L'Hospital's rule; improper integrals; sequences and series, convergence tests, and Taylor series; functions of more than one variable; partial derivatives; the differential; directional derivatives; gradients; double and triple integrals; and evaluation and applications. Prerequisite: Mathematics placement test.

STATISTICS (3-4 semester credits): Focuses on mathematical reasoning. Descriptive methods (frequency distributions and graphing and measures of location and variation), basic probability theory (sample spaces, counting, factorials, combinations, permutations, and probability laws), probability distributions (normal distributions and normal curve, binomial distribution, and random samples and sampling techniques), statistical inference (estimation, hypothesis testing, t-test and chi-square test, and errors), correlation and regression, and f-test and analysis of variance.

CHEMISTRY I (4-5 semester credits): Topics include the periodic table of elements, basic bonding, atomic structure, stoichiometry of chemical reactions, the gaseous state, solutions, condensed phases and phase transitions, and heat and enthalpy of reactions. Laboratory required. Prerequisite: One year of high school chemistry.

CHEMISTRY II (4-5 semester credits): Topics include equilibrium, acids and bases; spontaneous change and equilibrium; electrochemistry and redox reactions; chemical kinetics; fundamental particles, particle and waves; complex bonding, molecular orbitals and spectroscopy; order and symmetry in condensed phases; coordination compounds, and descriptive topics in inorganic chemistry. Laboratory required. Prerequisite: Chemistry I

Supporting Physical Science Courses (Two courses are required from the list below: Either two in physics or two in organic chemistry or one physics and one organic chemistry. The other two courses are, then, optional.)

TRIG- or CALCULUS-BASED PHYSICS I, II (8-10 semester credits): Topics include mechanics (kinematics, Newton's three laws, work and energy, conservation of linear momentum, angular momentum, rotational dynamics, gravitation and Kepler's law, and harmonic motion), electricity and magnetism (charge; electric field and potential; resistance, capacitance, and inductance; RCL circuits; laws of Gauss, Ampere, and Faraday; magnetic properties; electromagnetic waves; and Maxwell's equations), heat and fluids (laws of thermodynamics, ideal gases and thermal properties, Kinetic theory of gases, and fluid mechanics), and modern physics (wave motion, sound, optics and introduction to modern physics). Laboratory required. Prerequisite: Trigonometry.

ORGANIC CHEMISTRY I (3-5 semester credits): Topics include covalent bonding, alkanes, cycloalkanes; nucleophilic substitution and elimination reactions; alkenes; sterio-chemistry; alkynes; aromatic compounds; organic halides and organimetallic compounds; and alcohols, phenols, and ethers. Laboratory required. Prerequisite: Chemistry II.

ORGANIC CHEMISTRY II (3-5 semester credits): Topics include aldehydes and ketones, carboxylic acids and derivatives, dicarbonyl compounds, carbohydrates, amines, amino acids and proteins, heterocyclic compounds, and nucleic acids. Laboratory required. Prerequisite: Organic Chemistry I.

Biological Science Core Courses: These courses may be taken in reverse order since some colleges and universities offer the cellular and molecular emphasis in the first biology course for the major and organismal biology in the second.

BIOLOGY I (4-5 semester credits): Organismal Biology, Ecology and Evolution. An introduction to structure and function of major groups of microorganisms, fungi, animals, and plants. Emphasis on evolutionary relationships and ecological principles. Laboratory required. Prerequisite: High school biology.

BIOLOGY II (4-5 semester credits): Cellular and Molecular Biology. An introduction to biochemistry, molecular genetics, cell structure, function, and processes. Laboratory required. Prerequisite: High school biology.

BIOLOGICAL SCIENCES PANEL

Public Universities

Janice Coons, Eastern Illinois University
Mitrick Johns, Northern Illinois University
Leo Miller, University of Illinois at Chicago
William Muhlach, Southern Illinois University at Carbondale
P. James Nielsen, Western Illinois University
Carleton Phillips, Illinois State University, **CO-CHAIR**
Jamie Thomerson, Southern Illinois University at Edwardsville
James Weyhenmeyer, University of Illinois at Urbana-Champaign

Community Colleges

Austin Andersen, Lincoln Land Community College
James Grice, Morton College
Jerry Hinkley, College of Lake County, **CO-CHAIR**
John Hoagland, Danville Area Community College
Ahmad Kamal, Olive-Harvey College
Randy Schietzelt, William Rainey Harper College
Bradley Smith, Sauk Valley Community College
Robert Weck, McHenry County College
Leo Welch, Belleville Area College
James White, Prairie State College

Private Institutions

Terry Matthews, Millikin University
John Smarrelli, Loyola University of Chicago
Donald Taylor, Benedictine University

Transfer Coordinators

Kay Kleckler, Highland Community College
Matt Mimlitz, Lake Forest College

Staff

Donna Corriveau, Board of Higher Education
Yvonne Singley, Illinois Community College Board

COMPUTER SCIENCE

Bachelor's degree programs in computer science encompass two distinct emphases: a Business (or Information Systems) emphasis and a Technical (or Computer Science) emphasis. The recommendation below applies to programs in both areas. The panel encourages students to seek advisement to meet the needs of their particular emphasis. To transfer into a bachelor's degree program in computer science as a junior, students need to complete a minimum of 60 semester credits. Community and junior college students are encouraged to complete an Associate in Arts or Associate in Science degree before transfer.

	Business Emphasis	**Technical Emphasis**
General Education Core Courses[1]	**38-41 semester credits**	**38-41 semester credits**
Communications	9 semester credits	9 semester credits
Humanities/Fine Arts	9 semester credits	9 semester credits
Social/Behavioral Sciences	9 semester credits *Principles/Macroeconomics (3)* *Principles/Microeconomics (3)*	9 semester credits[2]
Physical and Life Sciences	7-8 semester credits[3]	7-8 semester credits *Calc-based Physics (4)*
Mathematics	4-6 semester credits *Calculus I (4-5)* *or Business Calculus (4)*	4-6 semester credits *Calculus I (4-5)*

[1] *General Education courses are described in the Illinois General Education Core Curriculum*
[2] *Economics gives students more flexibility by allowing a change to the business emphasis.*
[3] *Calculus-based Physics I gives students more flexibility by allowing a change to the technical emphasis.*

Support Courses	**3-8 semester credits**	**8-14 semester credits**
	Financial Accounting (3-4)	Calc-Based PhysicsII(4-5) Physics III *if needed to finish sequence* Calculus II (4-5)
Recommended:	*Calculus II (3-4)*	*Calculus III (4)*
Computer Science Core Courses	**9-11 semester credits**	**9-11 semester credits**
Computer Science I	3-4 semester credits	3-4 semester credits
Computer Science II	3-4 semester credits	3-4 semester credits
Discrete Structures	3 semester credits	3 semester credits
Other Computer Science Articulated Courses	**6-7 semester credits**	**6-7 semester credits**

These Computer Science courses will transfer either as major or elective courses at all senior institutions

Computer Science III (Data Structures) (3-4)
Computer Organization (3)

Optional Business Courses **6-8 semester credits**
Business Statistics (3-4)
Managerial Accounting (3-4)

Computer Science Course Descriptions

Support Courses

CALCULUS I-III (11-13 semester credits): Analytic geometry topics include coordinate systems, lines and line segments, distance between points, line sketching, equations and graphs of conic sections, transformation of coordinates, translations and rotations, parametric equations, polar coordinates and equations, vectors in two and three dimensions, vector operations, planes and lines in space, surfaces and quadric surfaces, cylindrical and spherical coordinates and space curves. Calculus topics include complex numbers and notation; limits and continuity; definition of derivative, rate of change and slope; derivatives of polynomial and rational functions; the chain rule; implicit differentials; approximation by differentials; higher order derivatives; Rolle's theorem and mean-value theorem; applications of the derivative; anti-derivative; the definite integral; the fundamental theorem of calculus; area, volume and other applications of the integral; the calculus of the trigonometric functions; logarithmic and exponential functions; techniques of integrations, including numerical methods; indeterminate forms and L'Hospital's rule; improper integrals; sequences and series, convergence tests, and Taylor series; functions of more than one variable; partial derivatives; the differential; directional derivatives; gradients; double and triple integrals; and evaluation and applications. (Starred topics are optional, though generally included for maximum semester credits.) Prerequisite: Math placement test.

CALCULUS-BASED PHYSICS I and II (8-10 semester credits): Topics include mechanics (kinematics, Newton's three laws, work and energy, conservation of linear momentum, angular momentum, rotational dynamics, gravitation and Kepler's law, and harmonic motion), electricity and magnetism (charge; electric field and potential; resistance, capacitance, and inductance; RCL circuits; laws of Gauss, Ampere, and Faraday; magnetic properties; electromagnetic waves*; and Maxwell's equations*), heat and fluids (laws of thermodynamics, ideal gases and thermal properties, Kinetic theory of gases, and fluid mechanics), and optics and modern physics* (wave motion and sound, optics, and introduction to modern physics). Laboratory required. (Starred topics are optional, though generally included for 10 semester credits.) Prerequisite: Calculus.

CALCULUS-BASED PHYSICS III (3-4 semester credits): Topics in optics and modern physics, including wave motion and sound, optics, and introduction to modern physics. Laboratory required. (Assumes 8 credits in Calculus-based Physics I and II.)

Computer Science Core Courses

COMPUTER SCIENCE I (3-4 semester credits): The first of a sequence of courses for students majoring in Computer Science, Mathematics, or Engineering. Disciplined approach to problem-solving and algorithm development. Introduction to procedural and data abstraction. Selection, repetition, and sequence cotrol structures. Program design, testing, and documentation using good programming style. Block-structured high-level programming languages. Arrays, records, files. Prerequisite: Intermediate algebra or higher, as determined by the institution.

COMPUTER SCIENCE II (3-4 semester credits): The second in a sequence of courses for students majoring in Computer Science. Design and implementation of large-scale problems. Abstract data types. Data structures: files, sets, pointers, lists, stacks, queues, trees, graphs. Program verification and complexity. Recursion. Dynamic concepts: memory, scope, block structures. Text processing. Introduction to searching and sorting algorithms. This course should be taught using the same programming language as Computer Science I. Prerequisite: Computer Science I.

DISCRETE STRUCTURES (3 semester credits): Introduction to analysis of finite collections and mathematical foundations of sequential machines, computer system design, data structures, and algorithms. Includes sets and logic, subscripts, arrays and vectors, number systems, counting, recursion, graph theory, trees, nets, and Boolean algebra. Prerequisite: Intermediate algebra.

Other Computer Science Articulated Courses

COMPUTER SCIENCE III/Data Structures (3-4 semester credits): Experience with inheritance in an object-oriented language. Algorithmic paradigms: divide and conquer, greedy, dynamic, backtracking. Recurrence relations. Complexity analysis: big oh, big omega, big theta, little oh. Algorithms: graphs, sorting, searching, string processing. Advanced ADTs: sets, graphs, heaps, hash tables. Random number generation and related algorithms. Prerequisite: Computer Science II and Discrete Structures (or equivalent).

COMPUTER ORGANIZATION (3 semester credits): Basic computer architecture. Instruction sets, microprogramming and assembly language. I/O, including devices, busses, and interrupts. Memory systems and organization. Prerequisite: Computer Science I.

Business Courses

FINANCIAL ACCOUNTING (3-4 semester credits): Presents accounting as an information system that produces summary financial statements, primarily for users external to a business or other enterprise. Students study the forms of business organization and the common transactions entered into by businesses. The emphasis is on understanding and applying basic accounting principles and other concepts that guide the reporting of the effect of transactions and other economic events on the financial condition and operating results of a business. How to analyze and interpret historical financial statements and the limitations of using these in making forward-looking business decisions is included. The primary content emphasis will be accounting for current assets and liabilities, long-term assets and liabilities, corporations' cash flow statements, and financial statement analyses.

MANAGERIAL ACCOUNTING (3-4 semester credits): Presents accounting as a system of producing information for use in internally managing a business. The course emphasizes the identification, accumulation, and interpretation of information for planning, controlling, and evaluating the performance of the separate components of a business. Included is the identification and measurement of the costs of producing goods or services and how to analyze and control these costs. Decision models commonly used in making specific short-term and long-term business decisions also are included.

BUSINESS STATISTICS (3-4 semester credits): The basic concepts of statistical analysis used in business decision making, including probability and how uncertainty is dealt with in real life. The student will analyze and work out simple problems and should be able to recognize applications of different statistical techniques, interpret the results of analyses, and recognize instances in which statistical techniques have been misused. The following concepts and statistical techniques are included: measures of central tendency and variability; random variables and probability distributions; binomial, normal, and sampling distributions; estimation; tests of hypotheses; chi square tests; linear regression and correlation; and one-way analysis of variance. Prerequisite: Finite Mathematics or higher.

Computer Science Courses for Other Majors

COMPUTER PROGRAMMING FOR ENGINEERS (2-4 semester credits): Topics include an introduction to computer hardware and software (input/output devices and operating systems), basic problem-solving techniques and programming paradigms, fundamental numerical algorithms (graphical display, curve fitting, convergence, stability, and error handling), and fundamental non-numerical algorithms and data structures. Includes or is accompanied by study of a structured modern language (including language formats and syntax, design and construction of software, and programming assignments). Prerequisite: Calculus 1. *Engineering Transfer Recommendation*

COMPUTER APPLICATIONS & BUSINESS SYSTEMS CONCEPTS (3-4 semester credits): Designed primarily for students planning to major in a field of commerce, students are acquainted with and trained in the use of business computer packages, including word processing, database management, spreadsheet, and presentation software and Internet access methods. Operating systems such as DOS, OS/2, Windows, and UNIX are reviewed. In addition, the basics of management information systems are covered. *Business (accounting, finance, management, and marketing) Transfer Recommendation.*

COMPUTER SCIENCE PANEL

Public Universities

Rodney Angotti, Northern Illinois University
David Ballew, Western Illinois University, **CO-CHAIR**
Carl Chang, University of Illinois at Chicago
George Friedman, University of Illinois at Urbana-Champaign
Scott Grissom, University of Illinois at Springfield
Jimmie Hattemer, Southern Illinois University at Edwardsville
Robert McGlinn, Southern Illinois University at Carbondale
Winfried Rudloff, Governors State University

Community Colleges

Hiriam Crawford, Jr., Olive-Harvey College
Bernard Ferreri, City Colleges of Chicago
Ilga Higbee, Black Hawk College
Jeff Koenke, Parkland College
Jeanne Massingill, Highland Community College
Jean Margarette Merrill-Beech, Triton College
Mark Pelczarski, Elgin Community College, **CO-CHAIR**
Ram Raguraman, Joliet Junior College
Mary Rylko, McHenry County College
David Schuessler, Rend Lake College

Private Institutions

Henry Harr, DePaul University
Barbara Harris, DeVry Institute of Technology
Ken Mihavics, Roosevelt University
Steve Renk, North Central College

Transfer Coordinators

Mark Elsen, DePaul University
Alan Hardersen, McHenry County College
Miriam Rivera, Northeastern Illinois University

Staff

Marjorie Hinojosa, Board of Higher Education
Barbara Risse, Illinois Community College Board

MASS COMMUNICATION

Bachelor's degree programs in Mass Communication encompass four major program areas: Advertising/Public Relations, Radio/TV/Film, Journalism/News Editorial/Photojournalism, and Mass Communication (Integrated). For each specialty, 37-41 hours of general education are recommended plus 9 semester credits in the desired major. The remaining hours necessary to complete an associate degree (a minimum of 60 semester hours) should be chosen with the assistance of an academic advisor. Completion of at least 60 semester hours will permit students to transfer as juniors. Community and junior college students are encouraged to complete an Associate in Arts or Associate in Science degree prior to transfer. Students should be aware that some schools have specific requirements for all students for admission to the major, e.g. portfolio review, minimum Grade Point Average (GPA), and/or other forms of assessment. Check with your advisor.

General Education Core Courses[1]	**37-41 semester credits**
Communication	9 semester credits
Mathematics	3-6 semester credits
Physical and Life Sciences	7-8 semester credits
Humanities	9 semester credits
Social and Behavioral Sciences	9 semester credits

[1]*General education courses are described in the Illinois General Education Core Curriculum.*

Note: Students should possess computer literacy skills which may be acquired prior to or early in the student's college experience.

Advertising/Public Relations

Advertising/Public Relations Courses	**9 semester credits**
Recommended: Introduction to Public Relations	
and/or Introduction to Advertising	3-6 semester credits
Other Transferable Advertising/Public Relations courses:	3-6 semester credits
Introduction to Broadcasting	
Introduction to Mass Communication	
Introduction to Radio Production	
Introduction to TV Production	
Introduction to Public Relations	
Introduction to Advertising	
Broadcast Writing	
Basic News Writing	

Radio/TV/Film

Radio/TV/Film Courses	**9 semester credits**
Recommended: Introduction to Mass Communication	
and/or Introduction to Broadcasting	3-6 semester credits
Other Transferable Radio/TV/Film courses:	3-6 semester credits
Introduction to Radio Production	

Introduction to TV Production
Broadcast Announcing
Broadcast Writing
Introduction to Film
Introduction to Mass Communication
Introduction to Broadcasting

Journalism/News Editorial/Photojournalism

Journalism/News Editorial/Photojournalism Courses	**9 semester credits**
Recommended: Introduction to Mass Communication	3 semester credits
Basic News Writing	3 semester credits
Basic News Editing	3 semester credits

Mass Communication (Integrated)[2]

Mass Communication (Integrated) Courses	**9 semester credits**
Recommended: Introduction to Mass Communication	3 semester credits
Other Transferable Mass Communication (Integrated) courses	6 semester credits
Introduction to Radio Production	
Introduction to TV Production	
Basic News Writing	

[2]*An integrated Mass Communication program integrates coursework in print and electronic media. It may offer a number of specializations, including print journalism, radio/television/ film, electronic news, corporate and institutional media, advertising/public relations, visual communication, media management, photography, and international mass communication.*

This list is not meant to limit the transferability of additional courses in the discipline or to discourage the development of new courses. The current articulation process should continue between individual institutions for courses not on this list. Academic advisors should continue to be knowledgeable of transfer requirements at various college and universities, and students should regularly consult their advisors throughout their academic careers. The panel believes it is in the best interest of students and the discipline to continue to offer the depth and breadth of courses that are available at many institutions.

Mass Communication Course Descriptions

INTRODUCTION TO PUBLIC RELATIONS (3 semester credits): Provides an overview of the practices, theories, ethics, issues, and problems of public relations. Integrated into the course are practical applications. On successful completion, students will be able to:

- define terminology and explain concepts regarding the historical context and origins of public relations;
- demonstrate a knowledge of the organizational settings, decision-making roles and relationships of pubic relations in private, government, corporate, and not-for-profit organizations;
- identify professional growth opportunities and codes of ethics in public relations adopted by organizations such as the Public Relations Society of America and the International Association of Business Communicators;
- apply knowledge of First Amendment considerations regarding commercial speech, libel laws, and access to government information;
- analyze several models of communication theory in regard to consensus, channels, open and closed systems, and information dissemination;
- demonstrate knowledge of various processes to develop public relations campaign strategies using electronic, spoken and printed media;
- analyze and/or develop communication plans through portfolios, documented case studies, and other written and/or electronic research projects and tests; and
- identify concepts and processes involved in issue analysis and issues management.

INTRODUCTION TO ADVERTISING (3 semester credits): Topics include the role of advertising in integrated marketing communications, consumer behavior, creative strategies, and types of media. Integrated into the course are practical applications. On successful completion of the course, students will be able to:

- define terminology and explain concepts regarding dimensions/foundations of advertising;
- explain the social, legal, and ethical aspects of advertising;
- explain the relationship between advertising and marketing;
- demonstrate an understanding of the role of adver-tising in integrated marketing communications;
- recognize the factors that influence consumer behavior;
- explain the target marketing process;
- use marketing and advertising research;
- analyze and understand the importance of creative strategies and executions in advertising campaigns;
- demonstrate an understanding of media planning; and
- weigh the advantages and disadvantages of using different media to convey the advertising message.

INTRODUCTION TO BROADCASTING (3 semester credits): Surveys the role and effects of the broadcasting and cable industry. Emphasizes historical development, media regulations, terminology, programming and career opportunities. On successful completion of the course, students will be able to:

- identify the major events in broadcasting history including the beginning of radio, creation of the FCC, advent of the TV, birth of cable, and deregulation;
- analyze the laws and regulations governing broadcasting in America;
- explain the business of broadcasting including such topics as advertising, rating, and syndication;
- analyze the impact of new technology on the field of broadcasting as it relates to industry growth and diversification;
- investigate career opportunities in the field of broadcasting;
- define broadcasting terms; and
- define the process of developing radio and television programming.

- INTRODUCTION TO MASS COMMUNICATION (3 semester credits): Provides an overview of the nature, functions, and responsibilities of the mass communication industries in a global environment with an emphasis on the media's role in American society. On successful completion of the course students will be able to:
- demonstrate an understanding of the reciprocal influence of the media and contemporary society;
- apply communication theories to analyze the influence of mass communication systems on American society;
- analyze representative research in mass communication;
- trace the historical development of various media forms;

- distinguish media functions—information, persuasion, entertainment, and transmission of culture;
- comprehend methods of media organization, finance, and regulation in a global environment;
- describe usage and impact of the various media; and
- critically analyze legal and ethical media issues.

INTRODUCTION TO RADIO PRODUCTION (3 semester credits): An introduction to audio production techniques and equipment operation. Includes terminology, basic script writing, editing, producing commercials, public service announcements and newscasting in a studio setting. On successful completion of the course, students will be able to:

- define audio production terms;
- operate radio production and studio equipment;
- demonstrate an understanding of the physics of sound;
- produce commercials, public service announcements, and promos;
- compose and produce a newscast;
- set up and operate remote production equipment;
- apply audio aesthetics and techniques to audio production; and
- demonstrate an understanding of sound production engineering.

INTRODUCTION TO TV PRODUCTION (3 semester credits): An introduction to multi-camera production. Includes terminology, conceptualization, basic script writing, audio board operations, and lighting in a studio setting. On successful completion of the course, students will be able to:

- define TV production terms;
- demonstrate an understanding of studio television production engineering;
- demonstrate and use the photographic lighting principle with knowledge of technical and non-technical objectives;
- perform multi-camera studio directing;
- operate studio audio and video equipment;
- compose a basic television script;
- produce television commercials, PSA, or newscast from conceptualization to finished presentation; and
- perform all duties of individual studio crew member positions.

BROADCAST WRITING (3 semester credits): Emphasizes writing for visual and audio presentations, including continuity, commercials, public service announcements, news, and special events. On successful completion of the course, students will be able to:

- compose standard script formats for radio and television;
- distinguish between broadcast and print writing styles;
- write and rewrite news stories for radio and television using correct style and format;
- script other types of programming (drama, interview, documentary, industrial, etc.) for radio and television using correct style and format;
- define broadcast writing terms;
- identify target audience and apply techniques of audience analysis; and
- discover and apply ethical issues and standards in broadcast writing.

BASIC BROADCAST ANNOUNCING (3 semester credits): Broadcast announcing principles and techniques are discussed and applied. Includes creating, reading and delivering commercials, news, interviews, public service announcements, and special events. On successful completion of the course, students will be able to:

- conduct a broadcast interview;
- recognize and use proper pronunciation and language skills;
- develop an appropriate speaking style for broadcasting;
- demonstrate an understanding of the various roles of an announcer;
- operate broadcast studio equipment;
- analyze, edit, and deliver broadcast copy;
- develop impromptu on-air skills; and
- conduct a self-evaluation of on-air performance.

BASIC NEWS WRITING (3 semester credits): Introduction to news writing including the techniques of news gathering, reporting, and interviewing, the use of library and online database research methods and other related skills. Students write basic stories under real time constraints. On successful completion of the course, students will be able to:

- write clear, concise, accurate, complete, balanced and readable news stories;
- define what constitutes news and how news stories differ from features and opinion pieces;
- effectively apply research skills for writing news stories;
- write effective leads;
- write a variety of types of news stories;
- gather and write news in an ethical manner and apply the laws governing journalists;

- demonstrate knowledge of AP stylebook rules, and
- write under deadline pressure.

BASIC NEWS EDITING (3 semester credits): Introduction to the principles and techniques of electronic editing, information management and publication design emphasizing the editing of body copy and display type for maximum clarity and impact. On successful completion of the course, the student will be able to:

- effectively edit stories;
- rewrite stories without distorting them;
- write effective headlines and cutlines;
- demonstrate basic knowledge of typography;
- demonstrate the basics of public design and the logic of packaging; and
- apply AP stylebook rules.

From the General Education Core Curriculum:

FILM HISTORY AND APPRECIATION (3 semester credits): A survey of film as an art form, emphasizing elements of visual story telling, aesthetics, differences among genres, and criticism. Examines such techniques as pictorial composition, movement, sound, lighting, and editing.

MASS COMMUNICATION PANEL

Public Universities

Peter Bukalski, Southern Illinois University at Edwardsville
Gary Burns, Northern Illinois University
J. Michael Duvall, University of Illinois at Springfield
Robert Holton, Western Illinois University, **CO-CHAIR**
Leslie Hyder, Eastern Illinois University
Tom Johnson, Southern Illinois University at Carbondale
Catherine Konsky, Illinois State University
Teresa Savage, University of Illinois at Urbana-Champaign

Community Colleges

Maria Bakalis, Waubonsee Community College
Ken Beno, Lake Land College
Dan Edwards, Wabash Valley College
Juanita Gammon, Parkland College
John Geraci, South Suburban College
Diane McNeilly, Kishwaukee College
Jonah Rice, Southeastern Illinois College
Catherine Stablein, College of DuPage, **CO-CHAIR**
Ed Sutter, Joliet Junior College
Robert White, Black Hawk College

Private Institutions

Bruce Evensen, DePaul University
Ed Morris, Columbia College Chicago
Bren Murphy, Loyola University Chicago
Karni Tiernan, Bradley University

Transfer Coordinators

David Greeson, Lake Land College
Paul Hays, DePaul University
Miriam Rivera, Northeastern Illinois University

Staff

Jan Ignash, Board of Higher Education
Barbara Risse, Illinois Community College Board

SPECIAL EDUCATION

Community and junior college students interested in completing a bachelor's degree in special education are strongly encouraged to complete an Associate in Arts or Associate in Science degree prior to transfer. To transfer into an approved baccalaureate program in special education as a junior, students must complete a minimum of 60 semester credits (up to a maximum of 64 semester credits). Since admission is competitive, completion of the courses below does not guarantee admission. Students should be aware that a minimum grade point average of 2.25 (and for some universities a 2.5) on a 4.0 scale is required for program admission, and passage of a basic skills (reading, writing, grammar, and math) test is also required.

General Education Core Courses[1]		**Additional Requirements for Teacher Certification**	**Total**
Communication	9 semester credits		9
Mathematics	3-6 semester credits		3-6
Physical/Life Sciences	7-8 semester credits	1-2 semester credits	9
Social/Behavioral Sciences[2]	9 semester credits		9
American/US National Government (3)[3]			
Humanities/Fine Arts[2]	9 semester credits	6 semester credits US/American History (3)[3] English (3)[3]	15
		2 semester credits Health/Physical Development	2
	37-41 semester credits	**9-10 semester credits**	**47-50**

[1]*General education courses are described in the Illinois General Education Core Curriculum.*
[2]*Select at least one non-Western culture 3 semester credit course in either category.*
[3]*Courses specifically required for teacher certification.*

Additional Recommended Transferable Courses	**9-10 semester credits**
Introduction to Education	3 semester credits
General Psychology	3 semester credits
Human Growth and Development	3 semester credits
Observation/Clinical Experience Hours	0-1 semester credit

Additional courses to total at least 60 semester credits.

This list is not meant to limit the transferability of additional courses or to discourage the development of new courses. The panel recommends that the current articulation process continue between individual institutions for courses not on this list. Academic advisors should continue to be knowledgeable of transfer requirements at various colleges and universities, and students should regularly consult their advisors throughout their academic careers. The panel believes it is in the best interest of students and the discipline to continue to offer the depth and breadth of courses that are available at many institutions.

Special Education Course Descriptions

HUMAN GROWTH AND DEVELOPMENT (3 semester credits): A foundation course in the theories, patterns, and principles of development: prenatal through adolescence, in depth, including the study of physical, social-emotional, cognitive, and language development of typical and atypical individuals. An examination of theories to include Piaget, Erikson, Vygotsky, Skinner and others and their implications for cognitive, linguistic, physical, and social-emotional development. An exploration of human development in the context of gender, family, culture, and society.

INTRODUCTION TO EDUCATION (2-3 semester credits): An overview of American education as both a professional and a public enterprise. Social, historical, and philosophical foundations give perspective to an examination of current issues, policies, and trends in the field of education, including cultural diversity. May include organization and structure, finance, and curriculum. On successful completion of the course, the student will be able to:

- evaluate teaching as a profession and analyze the impact of various social forces on the practicing teacher;
- explain historical, philosophical and sociological influences on education;
- identify and compare the tenets of selected educational philosophies and their relation-ships to present educational practices;
- relate basic sociological concepts to American society and American schools;
- demonstrate a knowledge of prevalent organization and governance patterns in education systems;
- define federal, state, and local responsibilities for education;
- summarize the funding sources for education at all levels;
- identify the major educational organizations and explain their purposes and contributions to American education;
- identify, evaluate, and explain selected curricular patterns, educational programs, and instructional innovations;
- identify and discuss current and emerging issues in education;
- demonstrate a knowledge of the meaning and benefits of multicultural education as an active process of good pedagogy;
- compare and contrast international education systems with the American education system; and
- demonstrate knowledge of basic needs, characteristics, and behavioral patterns in the teaching/learning process.

GENERAL PSYCHOLOGY (3 semester credits): A survey of the study of human and animal behavior with emphasis on the scientific nature of contemporary psychological investigation. Topics may include the biology of behavior, sensation and perception, learning, memory, cognition, motivation, emotion, life-span development of behavior, personality, abnormal behavior and its therapies, social behavior, and individual differences.

OBSERVATION/CLINICAL EXPERIENCE[1] (0-1 semester credit): Documented clinical experience(s) involving observation of and interaction with child learners and practitioners at work, according to specified guide-lines, within the appropriate special needs subject matter and age category. This experience, comprising a minimum of 30-45 hours, is planned, guided, and evaluated by a host teacher and must occur within an education setting, including those with diverse student populations. Upon satisfactory completion of this course, the student will be able to:

- identify child/adolescent characteristics;
- relate to children/adolescents in appropriate ways;
- reflect on his/her personal philosophy of education as it relates to learners of diverse cultures;
- evaluate his/her own potential to succeed in teaching; and review one's decision to enter teaching; and
- identify characteristics of successful teaching and learning strategies and differences in learning behaviors and learning styles.

[1]Can be integrated or offered as a separate course; May not replace clinical hours attached to other program requirements.

SPECIAL EDUCATION PANEL

Public Universities

Alan Balter, Chicago State University
Regina Foley, Southern Illinois University at Carbondale
Diane Kinder, Northern Illinois University
Adelle Renzaglia, University of Illinois at Urbana-Champaign
Patricia Schutt, Northeastern Illinois University
Kathlene Shank, Eastern Illinois University
Paula Smith, Illinois State University, **CO-CHAIR**
Robert Wagner, Southern Illinois University at Edwardsville

Community Colleges

Terry Ave, Danville Area Community College
Peg Callaghan, Oakton Community College
Linda Chapman, Lewis and Clark Community College
Floyd DuBois, Malcolm X College
Joan Morningstar, Shawnee Community College
Ronald Mosher, Rock Valley College
Sheryl Mullis, Richland Community College
Richard Simmons, College of DuPage
Judy Witkov, Moraine Valley Community College

Private Institutions

Janet Pierce-Ritter, Loyola University of Chicago
Charlotte Ross, Benedictine University
Rosalyn Templeton, Bradley University

Transfer Coordinators

Elizabeth Kuebler, Elmhurst College
Jim Russell, Northern Illinois University
Julia Schroeder, John A. Logan College, **CO-CHAIR**

Consultants

Michael Long, State Board of Education

Staff

Jan Ignash, Board of Higher Education
Barbara Risse, Illinois Community College Board

THEATRE ARTS

This recommendation applies to students seeking the bachelor's degree in theatre arts. To transfer into a bachelor's degree program in theatre arts as a junior, students need to complete a minimum of 60 semester credits. Community and junior college students are encouraged to complete an Associate in Arts degree prior to transfer. Since admission is competitive, however, completion of these courses alone does not guarantee admission.

General Education Core Courses[1]	**37-41 semester credits**
Communications	9 semester credits
Humanities/Fine Arts	9 semester credits
Mathematics	3-6 semester credits
Social/Behavioral Sciences	9 semester credits
Physical and Life Sciences	7-8 semester credits

[1]*General Education courses are described in the Illinois General Education Core Curriculum*

Theatre Arts Core Courses	**Up to 26 semester credits**
Stagecraft	3-4 semester credits
Acting I	3 semester credits
Stage Make-up	2-3 semester credits
Acting II	3 semester credits
Costumes	2-4 semester credits
Performance of Literature	3 semester credits
Play Production	3 semester credits
Practicum	1-3 semester credits

Theatre Arts Course Descriptions

STAGECRAFT (3-4 semester credits): Introduces students to safety procedures and basic techniques of scenery and property construction, tool use, scene painting, and backstage organization. Laboratory experience is mandatory.

STAGE MAKE-UP (2-3 semester credits): Introduces students to the principles, techniques, and materials of stage make-up and practical experience in their application. Laboratory experience is mandatory.

ACTING I (3 semester credits): Fundamentals of acting: concentration, observation, playing action and other basics are introduced through acting exercises, improvisations, and scene study. Major acting approaches, such as Cohen, Meisner, Stanislavski, and Shurtleff, will be used as the basis for helping the actor acquire craft in order to create believable characters.

ACTING II (3 semester credits): Development of fundamentals introduced in Acting I, emphasizing an intensive approach to acting exercises, improvisations, and scene study. Prerequisite: Acting I.

COSTUMES (2-4 semester credits): Introduces students to safety procedures and basic techniques of costume and accessory construction, tool use, fitting and draping, and costume shop organization through projects in cutting, stitching, and finishing costumes for production. Laboratory experience is mandatory.

PERFORMANCE OF LITERATURE (3 semester credits): The study and performance of literature, such as essays, letters, novels, poetry, and short stories, with an emphasis on using voice and movement to interpret the works and communicate that interpretation to an audience.

PLAY PRODUCTION (3 semester credits): An introductory exploration of the relationships between dramatic text and the play in performance, with special emphasis on basic terminology and methodology. Representative plays will be studied in their genre, historical, and social contexts.

PRACTICUM (1-3 semester credits): To increase proficiency in preparation and presentation of theatrical performances, credit is awarded for performing in or working on major college productions.

THEATRE ARTS PANEL

Public Universities

Sarah Blackstone, Southern Illinois University at Carbondale
Anthony Graham-White, University of Illinois at Chicago
E.T. Guidotti, Eastern Illinois University
Chris Jones, Northern Illinois University
Gene Kozlowski, Western Illinois University
Craven Mackie, Southern Illinois University at Edwardsville
Thomas Mitchell, University of Illinois at Urbana-Champaign
Sandra Kay Zielinski, Illinois State University

Community Colleges

Todd Ballantyne, William Rainey Harper College
Craig Berger, College of DuPage
Eibhlin Glennon, College of Lake County
Frank Hayashida, Kennedy-King College
Mary Kay Kickels, Moraine Valley Community College
Tom Lenane, Harry S Truman College, **CO-CHAIR**
Valerie Nicholson, Prairie State College
Dante Orfei, Morton College
Ronald Seney, Lincoln Land Community College
John Webb, Highland Community College

Private Institutions

Joel Fink, Roosevelt University
Caroline Dodge Latta, Columbia College Chicago, **CO-CHAIR**
John O'Malley, DePaul University
Nicholas Patricca, Loyola University Chicago

Transfer Coordinators

Judy Becker, Loyola University Chicago
Rita Pearson, Eastern Illinois University
Jim Polo, Moraine Valley Community College

Staff

Marjorie Hinojosa, Board of Higher Education
Barbara Risse, Illinois Community College Board

Item #4C
May 6, 1997

STATE OF ILLINOIS
BOARD OF HIGHER EDUCATION

UNDERGRADUATE EDUCATION: POLICIES ON TRANSFER AND ARTICULATION

In September 1990, the Board of Higher Education affirmed its priority on improving the quality of undergraduate education and amended its 1986 policies on undergraduate education. The primary change in the policies was the addition of seven statements on student transfer and program articulation that replaced an old 1970 articulation policy. In September 1994, the Board again amended its policies on transfer and articulation to incorporate completion of the Illinois Articulation Initiative's General Education Core Curriculum.

These current Board policies on transfer and articulation establish three levels of acceptance of completion of the General Education Core Curriculum for students who transfer. First, receiving colleges and universities are to grant full credit in lieu of their own lower-division general education requirements to students who completed the entire General Education Core Curriculum as part of earning an Associate in Arts or Associate in Science degree from a regionally accredited community or junior college. Second, receiving colleges and universities are to grant full credit in lieu of their own lower-division general education requirements to students who completed the entire General Education Core Curriculum at any regionally accredited college or university even though the student did not complete a degree program. Finally, receiving colleges and universities are to grant credit towards fulfillment of their own general education requirements to transfer students who completed individual courses in the General Education Core Curriculum if the receiving institution has a comparable general education requirement.

Since the September 1994 amendment, the Illinois Articulation Initiative has developed a series of recommendations on the transfer of lower-division courses in a variety of baccalaureate majors. Because Board policies do not provide for the transfer of lower-division courses in a major, the Board of Higher Education is today being asked to amend its policies to add such a provision. Unlike the provisions on transfer of the General Education Core Curriculum, which are possible because all degree programs require a general education component, the courses required for a specific major will transfer *only* if the student is admitted into a baccalaureate program in the same major that the student began before transfer. In other words, because courses required for one major do not necessarily apply to a different major, students who change their majors during the transfer process can expect that some credit will not count towards completion of the new major. In addition, of course, every baccalaureate degree-granting college and university does not offer every possible baccalaureate major. Finally, admission to some majors is extremely competitive due to limited space available. Thus, students are reminded within each Illinois Articulation Initiative Baccalaureate Major Recommendation that satisfactory completion of the recommended courses alone does not guarantee admission.

The Illinois Articulation Initiative Steering Panel developed and adopted the recommended policy statement at its fall 1996 meeting. The statement was reviewed by the public institutions' Academic Leadership Group and was published in the *IAI Newsletter* circulated to all participating

institutions. No comments were received. The complete Board of Higher Education policies on transfer and articulation are included in the Appendix.

Resolution

The staff recommends adoption of the following resolution:

The Board of Higher Education hereby adopts the following addition to its undergraduate education policies on transfer and articulation:

> *d. Students admitted in transfer who have met program entry requirements and have satisfactorily completed courses described in an Illinois Articulation Initiative Baccalaureate Major Curriculum Recommendation at a regionally accredited Illinois college or university should be granted credit towards fulfilling the receiving institution's comparable lower-division requirements for that specific major. Where admission is competitive, completion of a Baccalaureate Major Recommendation does not guarantee admission.*

APPENDIX

BOARD OF HIGHER EDUCATION
POLICIES ON UNDERGRADUATE EDUCATION
Transfer and Articulation

Adopted September 1990
Amended September 1994
[Proposed Addition Underlined]

Associate and baccalaureate degree-granting institutions are equal partners in providing the first two years of baccalaureate degree programs in Illinois. While each institution is ultimately responsible for the quality of the programs it provides, both associate and baccalaureate degree-granting institutions are expected to work together to assure that their lower-division baccalaureate programs are comparable in scope, quality, and intellectual rigor.

Any student admitted in transfer to an Illinois baccalaureate degree-granting institution should be granted standing comparable to current students who have completed the same number of baccalaureate-level credit hours and should be able to progress toward baccalaureate degree completion at a rate comparable to that of students who entered the baccalaureate institution as first-time freshmen. To assure students of comparable treatment, it is expected that:

a) Students admitted in transfer who have earned an Associate in Arts or an Associate in Science degree from a regionally accredited Illinois community or junior college whose general education requirement for the degree incorporates the Illinois General Education Core Curriculum will have met the receiving institution's all-campus, lower-division general education requirement for the baccalaureate degree (or for a second associate degree). A receiving institution may, however, require admitted transfer students to complete an institution-wide and/or mission-related graduation requirement that is beyond the scope of the Illinois General Education Core Curriculum.

b) Students admitted in transfer who have satisfactorily completed the Illinois General Education Core Curriculum at any regionally accredited Illinois college or university prior to transfer should be granted credit in lieu of the receiving institution's all-campus, lower-division general education requirement for an associate or baccalaureate degree. A receiving institution may, however, require admitted transfer students to complete an institution-wide and/or mission-related graduation requirement that is beyond the scope of the Illinois General Education Core Curriculum.

c) Students admitted in transfer who have satisfactorily completed courses within the Illinois General Education Core Curriculum at a regionally accredited Illinois college or university should be granted credit towards fulfilling the receiving institution's comparable all-campus, lower-division general education requirement.

d) Students admitted in transfer who have met program entry requirements and have satisfactorily completed courses described in an Illinois Articulation Initiative Baccalaureate Major Curriculum Recommendation at a regionally accredited Illinois college or university should be granted credit towards fulfilling the receiving institution's comparable lower-division requirements for that specific major. Where admission is competitive, completion of a Baccalaureate Major Recommendation does not guarantee admission.

Presidents and chief academic officers of associate and baccalaureate degree-granting institutions should provide leadership in implementing state policies on transfer and articulation and in resolving issues of mutual concern. To this end, the Illinois Board of Higher Education, in conjunction with the Illinois Community College Board, will regularly convene the presidents of baccalaureate and associate degree-granting institutions and system academic leadership to assess the status of state policies on transfer and articulation and to resolve any issues that arise.

Program faculties from both associate and baccalaureate degree-granting institutions should take primary responsibility for developing and maintaining course and program articulation agreements and for promoting compatibility between associate and baccalaureate curricula.

Associate and baccalaureate degree-granting institutions should work together to expand opportunities for students to complete baccalaureate degrees. Through formal partnerships, associate and baccalaureate institutions should jointly encourage baccalaureate degree completion and provide information on the transfer process, guidance in program and course selection, and orientation to the academic environment to prospective transfer students. Dual admission, "2+2," and similar articulation and transfer agreements should be developed to facilitate the transfer of students.

Colleges and universities should assure that transfer students have the same opportunities as other students to participate in the social, cultural, and academic support services necessary for their integration into the campus community.

A statewide system for monitoring the academic progress of cohorts of community and junior college students who transfer to baccalaureate degree-granting institutions shall be established by the Illinois Board of Higher Education in cooperation with the Illinois Community College Board and baccalaureate degree-granting institutions. This information should serve as the basis for the regular review and improvement of the undergraduate curricula, support services, and articulation and transfer agreements of associate and baccalaureate degree-granting institutions. The Illinois Board of Higher Education, in consultation with the Illinois Community College Board, will examine institutional and statewide trends in student transfer and degree completion and will use these analyses to make necessary modifications to policies on articulation and transfer.

Item #4D
May 6, 1997

STATE OF ILLINOIS
BOARD OF HIGHER EDUCATION

ILLINOIS ARTICULATION INITIATIVE WEBSITE PRESENTATION

In September 1996, the Board of Higher Education awarded a Higher Education Cooperation Act (HECA) grant to Illinois State University in cooperation with William Rainey Harper College to develop and implement an Illinois Articulation Initiative site on the World Wide Web. The purpose of the website is to make Illinois Articulation Initiative information readily available not only to institutions but also to current and prospective students.

Since September, hardware and software have been ordered and installed, the home page and complete site have been designed and tested, and the General Education Core Curriculum course database has been installed. Information on the Illinois Articulation Initiative, in general, and on the General Education Core Curriculum, specifically, is now available on the website for review by participating institutions and will be made available to the general public on May 15th. The Illinois Articulation Initiative (IAI) web address is: http://www.iTransfer.org.

Information now available on the IAI website includes: the purpose of the Illinois Articulation Initiative; narrative and graphical descriptions of the General Education Core Curriculum and the courses within it; courses identified by participating institutions that match those described in the curriculum; and contact information for all participating institutions, including a link to the institutions' websites, when available. The IAI site permits queries of the database from multiple perspectives, and a section provides background information for college and university counselors, advisors, and administrators, such as a brief history and answers to frequently asked questions.

This coming year, the recommendations and institutional courses for completed Baccalaureate Majors will be added to the IAI website. In addition, a complete back-up system will be added in order to protect the system against catastrophe. An in-service training program for advisors and others has also been developed, with several sessions scheduled for this spring and for fall 1997.

The IAI website development team at Illinois State University is:

- Carolyn Bartlett, University Registrar (HECA Grant Administrator)
- Mark Troester, Policy Analyst (Web Site Project Director)
- Jess Ray, Admission and Records Office (Transfer Policy Analyst)
- Roger Baird, Student (Web Development)
- John Walker, Associate Professor of Art (Graphic Design)
- Tim Flynn, Policy Analyst (Technical Support)

Steve Catlin, Dean of Enrollment Services at William Rainey Harper College, co-administers the HECA grant. The IAI Technical Task Force serves as the website advisory committee.

Technical Task Force

Carolyn Bartlett, Illinois State University, CO-CHAIR (Registrar and Co-Chair, Transfer Coordinators of Illinois Colleges and Universities)

Steven Catlin, William Rainey Harper College, CO-CHAIR (Enrollment Management and Co-Chair, Transfer Coordinators of Illinois Colleges and Universities)

Peter Frigo, Moraine Valley Community College (Enrollment Management)

David Greeson, Lake Land College (Chief Academic Officer)

Linnea Hauser, Bradley University (Transfer Admission)

Sheri Kallembach, Northern Illinois University (Records Systems)

Elizabeth Kuebler, Elmhurst College (Transfer Admission)

Tom McGinnis, Southern Illinois University at Carbondale (Transfer Admission and Co-Chair, Steering Panel)

Marilyn Murphy, University of Illinois (Information Systems)

Kathi Nevels, Malcolm X College (Transfer Center Director)

Sheryl Otto, William Rainey Harper College (Counselor/Advisor)

Gayle Saunders, Lincoln Trail College (Academic Dean)